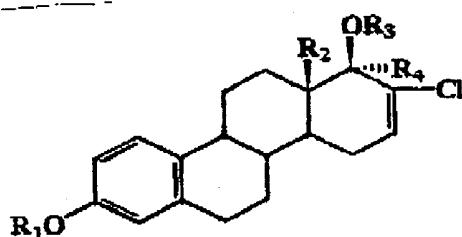


The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method for regulating fertility with or without an additional follicular sex steroid comprising administering to a patient in need thereof a therapeutically effective amount of a 17-Chloro-D homosteroid of formula I



(I)

in which

R₁ is a hydrogen atom or a C₁₋₆ alkanoyl radical or a benzoyl radical,

R₂ is a C₁₋₆ alkyl group,

R₃ is a hydrogen atom, a C₁₋₆ alkyl radical, a C₁₋₆ alkanoyl radical or a benzoyl radical, and

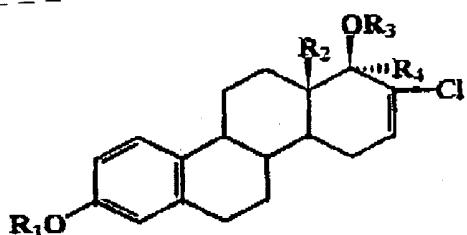
R₄ is a hydrogen atom, a C₁₋₆ alkyl radical, a C_nF_{2n+1} group, in which n=1, 2 or 3, or a C≡CR₅ group, in which R₅ is a hydrogen atom, a C₁₋₆ alkyl radical or an unsubstituted or substituted phenyl radical.

Claim 2 (previously presented): The method according to claim 1, wherein a therapeutically effective amount of a 17-Chloro-D homosteroid of formula I is administered for the treatment of female infertility.

Claim 3 (previously presented): The method according to claim 2 in connection with in vitro fertilization.

Claim 4 (previously presented): The method according to claim 2, wherein said female infertility is ovarian infertility.

Claim 5 (previously presented): A method for treating ovarian failure associated with aging comprising administering to a patient in need thereof a therapeutically effective amount of a 17-Chloro-D homosteroid of formula I



in which

R₁ is a hydrogen atom or a C₁₋₆ alkanoyl radical or a benzoyl radical,

R₂ is a C₁₋₆ alkyl group,

R₃ is a hydrogen atom, a C₁₋₆ alkyl radical, a C₁₋₆ alkanoyl radical or a benzoyl radical, and

R₄ is a hydrogen atom, a C₁₋₆ alkyl radical, a C_nF_{2n+1} group, in which n=1, 2 or 3, or a C≡CR₅ group, in which R₅ is a hydrogen atom, a C₁₋₆ alkyl radical or an unsubstituted or substituted phenyl radical.

Claim 6 (previously presented): The method according to claim 1, wherein a therapeutically effective amount of a 17-Chloro-D homosteroid of formula I is administered for ovarian contraception.

Claim 7 (previously presented): The method according to claim 6, wherein said method inhibits folliculogenesis.

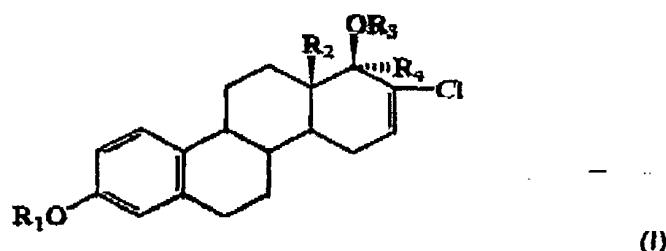
Claim 8 (previously presented): The method according to claim 6, wherein said method inhibits ovulation.

Claim 9 (previously presented): The method according to claim 6, wherein said method inhibits preimplantational development of ovulated oocytes.

Claim 10 (currently amended): A method for regulating fertility without additional use of a follicular sex steroid comprising administering to a patient in need thereof a pharmaceutical composition comprising a 17-Chloro-D homosteroid of formula I according to claim 12, without the administration of a follicular sex steroid.

Claim 11 (cancelled)

Claim 12 (previously presented): A 17-Chloro-D homosteroid of formula I



in which

R₁ is a hydrogen atom or a C₁₋₆ alkanoyl radical or a benzoyl radical,

R₂ is a C₁₋₆ alkyl group,

R₃ is a hydrogen atom, a C₁₋₆ alkyl radical, a C₁₋₆ alkanoyl radical or a benzoyl radical, and

R₄ is a hydrogen atom, a C₁₋₆ alkyl radical, a C_nF_{2n+1} group, in which n=1, 2 or 3, or a C≡CR₅ group, in which R₅ is a hydrogen atom, a C₁₋₆ alkyl radical or an unsubstituted or substituted phenyl radical.

Claim 13 (cancelled)

Claim 14 (previously presented): A compound of formula I according to claim 12 which is:

17-Chloro-17 α -ethinyl-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -propinyl-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-13 β -ethyl-17 $\alpha\alpha$ -methyl-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17 $\alpha\beta$ -acetoxy-17-chloro-17 $\alpha\alpha$ -methyl-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3-ol
17-chloro-17 $\alpha\alpha$ -(trifluoromethyl)-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -(pentafluoroethyl)-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -methyl-17 $\alpha\beta$ -(methoxy)-17 α ,18 α -dihomo-estra-1,3,5(10),16-tetraene-3-ol
17-chloro-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -(trifluoromethyl)-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -(pentafluoroethyl)-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -methyl-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -ethyl-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -ethinyl-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -propinyl-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol
17-chloro-17 $\alpha\alpha$ -(trifluoromethyl)-17 α -homoestra-1,3,5(10),16-tetraene-3,17 $\alpha\beta$ -diol-diacetate
17 $\alpha\beta$ -acetoxy-17-chloro-17 $\alpha\alpha$ -(trifluoromethyl)-17 α -homoestra-1,3,5(10),16-tetraene-3-ol
17-chloro-17 $\alpha\beta$ -methoxy-17 $\alpha\alpha$ -(trifluoromethyl)-17 α -homoestra-1,3,5(10),16-tetraene-3-ol

in which

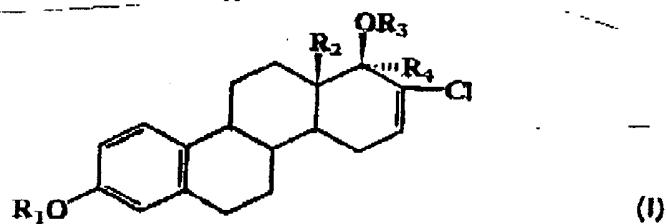
R_1 means a hydrogen atom or a C_{1-6} alkanoyl radical or benzoyl radical,

R_2 means a C_{1-6} alkyl group,

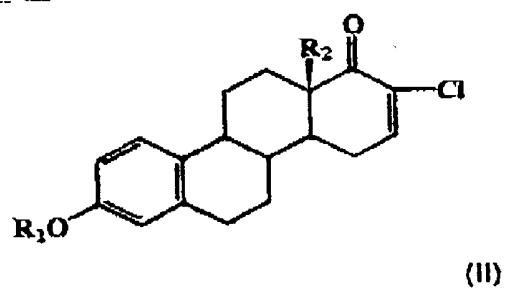
R_3 means a hydrogen atom, a C_{1-6} alkyl radical, C_{1-6} alkanoyl radical or benzoyl radical, and

R_4 means a hydrogen atom, a C_{1-6} alkyl radical, a C_nF_{2n+1} group, in which $n = 1, 2$ or 3 , or a $C\equiv CR_5$ group, in which R_5 is a hydrogen atom, a C_{1-6} alkyl radical or an unsubstituted or substituted phenyl radical.

Claim 15 (Currently Amended) A process for the production of a 17-chloro-D₋ homosteroid of the formula I according to claim 12,



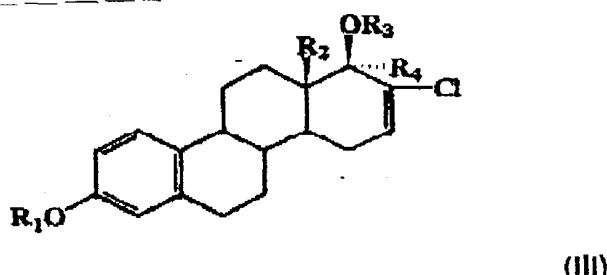
comprising converting a 17-chloro-1,3,5(10),16-tetraene-17-one of formula II



in which

R_1 is a hydrogen atom, a C_{1-5} alkyl radical, a C_{1-6} alkanoyl radical or a benzoyl radical,
 R_2 is C_{1-6} alkyl group,

with a magnesium-organic reagent of general formula $BrMg$ alkyl, $BrMg$ alkenyl or $BrMg$ alkynyl or with acetylene or an alkyl- or aryl-substituted acetylene in the presence of a base, or with a lithium-organic compound, or with a silicon-organic compound into a 17α -substituted compound of formula III,



in which

R_1 is a hydrogen atom, a C_{1-6} alkyl radical, a C_{1-6} alkanoyl radical or a benzoyl radical,

R_2 is a C_{1-6} alkyl group,

R_3 is a hydrogen atom, a metal atom or a silyl group, and

R_4 is a hydrogen atom, a C_{1-6} alkyl group, a C_nF_{2n+1} group, in which $n=1, 2$ or

3, or a $C\equiv CR_5$ group, in which R_5 is a hydrogen atom, a C_{1-6} alkyl radical or an unsubstituted or substituted phenyl radical,

whereby wherein in the case of R_5 = hydrogen, the free 17α -ethynyl compound of general formula III is further modified by a SONAGASHIRA reaction to form compounds with $R_5 = C_6H_4R_6$, in which R_6 stands for a free or substituted hydroxyl group, amino group, thiol group, sulfamate group, sulfonyl group or a C_{1-6} alkyl group or a C_{6-12} aryl group.

Claim 16 (previously presented): The process according to claim 15, wherein said compound of formula III in which R_1 is a C_{1-6} alkyl radical, is converted by ether cleavage into a free hydroxyl group.

Claim 17 (currently amended): The process according to claim 15, wherein said compound of formula II , in which R_1 is an acyl radical, is converted by ether cleavage into a free hydroxyl groups.

Claim 18 (currently amended): The process according to claim 15, wherein said compound of formula II in which R_3 is a hydrogen atom, is converted into ethers or esters.

Claim 19 (currently amended): A method for contraception in women comprising administering to a woman in need thereof a therapeutically effective amount of a compound of formula I according to claim 12.

Claim 20 (currently amended): A method for contraception in men comprising administering to a man in need thereof a therapeutically effective amount of a compound of formula I according to claim 12.

Claim 21 (currently amended): A method for treating benign or malignant proliferative diseases of the ovary comprising administering to a patient in need thereof a therapeutically effective amount of a compound of formula I according to claim 12.

Claim 22 (previously presented): The method of claim 21, wherein said malignant proliferative disease is ovarian cancer.

Claim 23 (previously presented): The method of claim 21, wherein said malignant proliferative disease is a granulosa cell tumor.

Claim 24 (previously presented): A pharmaceutical composition comprising at least one compound according to claim 12, as well as a pharmaceutically compatible vehicle.

Claim 25 (currently amended): A pharmaceutical composition according to claim 24 +2, further comprising a GnRH antagonist, a progesterone receptor antagonist, a mesoprogesterin, a gestagen or a tissue-selective gestagen.

Claim 26 (previously presented): The method according to claim 2, in connection with an in vivo treatment.

Claim 27 (previously presented): The process according to claim 15, wherein said base is tert-BuOK.

Claim 28 (previously presented): The process according to claim 15, wherein said lithium organic compound is LiC₂F₅

Claim 29 (previously presented): The process according to claim 15, wherein said silicon-organic compound is trifluoromethyl trimethylsilane.